

MULTI-FUNCTIONAL COMPACT WITH STORAGE RECEPTACLES
TECHNICAL FIELD OF THE INVENTION

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The invention relates to containers, and more particularly, to a container having trays attached to hinged panels.

BACKGROUND OF THE INVENTION

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Consumer products have traditionally been sold in containers in a variety of shapes, sizes, and designs. Manufactures desire to package products in a manner that protects the product, permits easy access to the product in many instances and provides a printable surface. One problem often faced by manufacturers is that a container sturdy enough to protect a product is made from in a configuration and from a substance that does not provide a printable surface. Thus, it can be appreciated that it would be useful to have a container for receiving a variety of items, from a single article to a compound type of substance such as a cosmetic. It can be further appreciated that it would be useful to have a container that can provide easy access t a product. It can also be appreciated that it would be useful to have a container that protects a product while providing printable surface area.

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The products are placed in containers using a variety of packaging techniques. Cosmetics have traditionally been packaged and stored in ways that must take into consideration the need to preserve the material being stored from deterioration, while

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also presenting the package contents in a manner that is aesthetically pleasing to the customer. At the same time, it is required that the costs of manufacture be economical. Another desirable feature is that the package should be versatile enough to serve as a container for various types of cosmetic formulations and other materials. With respect to the packaging of cosmetic formulations, which are often packaged in molded compacts, it would be desirable to package directly into the same container what are known as "hot formulations," meaning cosmetic compositions that are heated and poured into a container in the fluid state then allowed to cool, and "cold formulations," meaning fluid or solid compositions that are not heated during packaging. This method of dual packaging has not previously been possible because the various elements of the molded compact could not be separated to permit filling via the different processes.

SUMMARY OF THE INVENTION

The container comprises at least one tray secured to a substrate. The substrate is folded or scored or a combination of these into at least two panels. At least one tray is secured to at least one surface of the substrate. In one embodiment, the container has a first tray secured to a first substrate panel. A second tray is secured to a second substrate panel. A hinge means secures the first substrate panel to the second substrate panel. The second tray is aligned and configured to at least partially cover a portion of the first tray when the container is in a closed position.

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It has now been found, however, that a package suited to containing cosmetic preparations for storage and display may be formed by the present invention. It is noted that while the package is considered generally applicable to the packaging of cosmetic preparations, the statement or description of that particular use should not be perceived as limiting, as the invention may be used to contain a variety of materials including compositions, solid materials or discrete articles.

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The package typically comprises an outer cover formed from a flexible substrate, which is formed by folding or scoring or a combination of these steps into at least a front panel, a rear panel and a hinge panel; said outer cover having an inner surface and an outer surface. The flexible substrate may be any material that can be easily folded or creased to provide an angled, box-like shape for the outer cover. Accordingly, this substrate may be selected from the group consisting of paperboard, synthetic paper and paperboard, foldable plastic, casebound chipboard, foldable fabric laminates, other laminates, and various combinations thereof. A preferred substrate is paperboard, which may be of varying basis weight according to the size and intended final weight of the package. For example, a solid bleached sulfate (SBS) board that is coated on one or both sides (C1S or C2S, respectively) may be used. The flexible substrate may include materials that provide certain desired characteristics to the package. For example, a barrier material may be used to coat one or both surfaces of a paperboard material to provide a

substrate that blocks migration of odors or aromas from the package contents to the exterior.

The surfaces of the cover may be printed with text, graphics or any other suitable image.

5 Printing may be done by any available method. Mirror panels may also be printed onto one or surfaces using metallic ink.

In one aspect of the invention, the outer cover may comprise a foldable extension from any free edge thereof. The extension may be sized to be of the same dimensions as the
10 front or rear panel. In a preferred embodiment, a foldable extension is provided at the outer edge of the front panel, and is folded inwardly toward the package interior to provide a panel that is double the thickness of the front panel, thus adding a strengthening effect. The foldable extension may also carry printed design, color or information, and allows these additional features to be introduced to the package interior
15 without the need for two-sided printing.

In yet another aspect, the foldable extension of the front panel of the outer cover may itself be folded into one or more panels which, when folded around the exterior of the rear panel, provide a closure means. In this respect, the foldable extension is folded into
20 a panel corresponding in dimension to the hinge panel of the outer cover, and a closure flap corresponding overlying at least a portion of the rear panel and having a free edge thereof. The free edge of the closure flap may terminate in a tab, which is formed to engage a slit in the rear panel to provide a closure means.

25 A formed plastic tray is attached to one or more of the surfaces of the outer cover. The attachment means may be an adhesive such as glue or a hot melt polymer.

Alternatively, the tray may be held in place in relation to the cover by mechanical means.

The tray comprises one or more receptacles of any suitable shape. Generally, the receptacle is in the shape of a rounded depression that may be sized for filling directly with the product being packaged, or to accommodate an insert or pan that holds the product. The ability of the package to be adapted for holding pans each containing hot or cold cosmetic formulations is a particular advantage of the invention, as both types of formulation are thus packaged in a single package. The plastic tray is formed from any plastic material that may be molded, for example, by injection molding or any other suitable means. Transparent, opaque, colored or optically modified plastic materials are equally suitable.

The plastic tray comprises one or more receptacles shaped and sized to accommodate the product to be packaged. For example, a single receptacle may be included for holding a compacted cosmetic preparation, or a single receptacle may be shaped to hold a compact disk. Dual receptacles may be incorporated into the plastic tray of other embodiments so that complementary cosmetic shades or other preparations that are desirably packaged together may be included in the same package. In another aspect of the invention, the receptacle may be sealed to protect its filled contents, either by affixing a protective film to the edges of the receptacle, or by attaching a cover to the receptacle to provide a closure means. The cover may be completely removable, or may be attached to the receptacle by a living hinge that is formed so as to be open in an untensioned position and in a closed, tensioned position when it is engaged with the top of the receptacle.

Each receptacle may also be formed to hold a cassette carrying the product. By this configuration, cassettes can be selected and inserted into the receptacles of each

package, thus allowing the package to be used for different combinations of product, or allowing the package to be customized at the point of sale.

In one aspect, the invention comprises a package that includes:

- 5 an outer cover formed of a flexible substrate and composed of a front panel, a rear panel and a hinge panel; each of the front panel and the rear panel having an outer edge and a hinge edge at the region of connection to the hinge panel; said outer cover having an inner surface and an outer surface;
- 10 oppositely located, formed plastic trays, each attached to the inner surface of either the front panel or the rear panel and being spatially opposed to a corresponding formed plastic tray attached to the other panel, and each including an outer edge corresponding in orientation to the outer edge of either the front or rear panel, and a hinge edge corresponding in orientation to the hinge panel of the outer cover; each formed plastic tray further including one or more receptacles formed therein; and
- 15 a locking element comprised of corresponding engagement elements which, when engaged, provide secure closure of the package. The engagement elements are preferably, but not necessarily, integrally formed with the plastic tray.

In one preferred embodiment, the package comprises two oppositely located, formed plastic trays. The oppositely located plastic trays may each additionally be formed to provide a recessed area at or near its outer edge, thus providing an access region for opening the package. Preferably, recessed areas are formed at the outer edge of oppositely located trays such that when the oppositely placed plastic trays are folded toward each other to close the package, an access region for opening the package is

25 defined in the region of the front panel and the rear panel.

In another aspect, the oppositely located, formed plastic trays may be shaped to provide a centrally depressed region in each tray. The facing centrally depressed regions are oppositely positioned abutting each other when the package is closed, forming a cavity into which may be placed an insert.

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In another preferred embodiment, at least one of the formed plastic trays further includes an extension formed along a portion of the outer edge thereof, such that the extension protrudes beyond the outer edge of the outer cover. The extension provides a gripping means for opening and closing the package, and protects the outer edge of the outer
10 cover from being abraded. In certain embodiments, the extended region may be formed along the entire length of the outer edge of the formed plastic tray; in other embodiments it may be formed as one or more rigid tabs that is formed along only a portion of the length of the outer edge of the formed plastic tray.

15 The formed plastic tray preferably comprises engagement elements formed integrally with the tray structure. In this respect, any engagement means that may be formed by the forming process are herein contemplated. Non-limiting examples of the corresponding engagement elements are that may be selected are ridges and grooves formed on at least a portion of the perimeter of the tray, pegs and sockets, hooks and
20 retainers, segments of adhesive fabric, or grommets. In certain preferred embodiments, the corresponding engagement elements are pegs and sockets, or ledges, which are correspondingly molded with the formed plastic tray in an injection molding process. The pegs are preferably formed to be slightly larger in diameter than the socket at the pendent end thereof. The engagement of the pegs into the sockets, preferably with
25 some application of pressure to insert the pendent ends, effects closure of the package.

The package of the invention may incorporate an electronic device such as an electronic article surveillance (EAS) tag, an antenna, an electronic security device or any combination thereof. One or more of these elements may be affixed or printed onto any surface of the package.

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In another embodiment that provides both a security means to detect tampering, as well as a display feature for the package contents, the outer cover may include one or more cutouts in either or both the front or rear panels. The cutout may be positioned over some region of a compact disk, for example, or over the receptacle to provide a clear
10 view of the product. The cutout may be covered by a transparent film on either the inner surface or the outer surface of the outer cover. For example, a transparent material may be adhered around the edges of the cutout on the inside or outside surface of the outer cover, or the entire package may be wrapped in a transparent film.

15 The various packaging embodiments of the invention provide a versatile, flexible, lightweight mode of packaging that is also economical to manufacture. The customer, typically a mass-market retailer, is also provided with a greater ability to customize the packaging without requiring the manufacture of new lots of packaging. For example, the cosmetic packaging of the invention can be customized at the point of sale, since the
20 retailer can insert or remove cassettes containing various colors and blends of products into individualized packages and present the customer with a uniquely prepared package carrying the manufacturer's branding. The same benefits would result if the packaging were to be used in other retail markets, such as compact disk or digital video disk marketing.

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BRIEF DESCRIPTION OF THE FIGURES

5 Figure 1 provides an exploded perspective view of a compact having multiple receptacles according to one embodiment of the present invention.

Figure 2 provides a perspective view of an open compact.

10 Figure 3 is a perspective view of a partially open compact.

Figure 4 is a perspective view of the closed compact of Figures 1-3.

15 Figure 5 is a perspective view of the compact of Figure 3 showing three-dimensional aspects of the formed plastic tray.

Figure 6 is a perspective view of a partially opened compact according to another embodiment of the invention and having a single receptacle.

20 Figure 7 is a perspective view of the closed compact of Figure 6.

Figure 7A illustrates another embodiment according to the invention.

25 Figure 8 is an exploded perspective view showing the relative configuration of the components of the compact of Figure 6.

Figure 9 is an exploded perspective view from the underside of the compact of Figure 8.

Figure 10 is a perspective view of a fully opened compact.

5 Figure 11 is a perspective view of a closed compact showing the internal configuration of the components when the package is closed.

Figure 12 is a planar view of a closed compact showing the internal configuration of the components when the package is closed.

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Figure 13 is a transverse section of the closure end of the compact in one embodiment of the invention.

Figure 14 is a perspective view of a formed plastic tray according to the invention.

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Figure 15 is a perspective view of a formed plastic tray according to the invention.

Figure 16 is a perspective view of the underside of the formed plastic tray of Figure 15.

20 Figure 17 is a perspective view of a mirrored compact according to one embodiment of the invention.

Figure 18 is a perspective view of a package according to the invention comprising a mirrored compact and applicator.

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Figure 19 is a representation of a package according to the invention comprising an insert contained within a cavity within the package.

Figure 20 is a perspective view of a closed compact including a cutout in the front panel
5 that provides a view of the package contents.

Figure 21 is a representation of a formed plastic tray having a cover over each receptacle according to one embodiment of the invention.

10 Figure 22 shows the opened compact of Figure 21.

Figure 23 is a perspective view of the underside of the compact of Figure 21.

Figure 24 is a representation of a package according to the invention comprising a
15 compact with a cover and an outer cover with a lockable, foldable extension.

Figure 25 is a representation of a package according to the invention comprising a compact with a cover and a foldable extension.

20 Figure 26 is an expanded view showing the outer cover and compact components of a package having a folded extension according to the invention.

Figure 27 is a representation of a package according to the invention wherein the outer cover comprises a folded extension.

Figure 28 is a representation of a package according to the invention having an alternatively configured cover element.

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DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS OF THE INVENTION

10 As shown in Figures 1-5, a multifunctional compact according to the invention comprises a first formed plastic tray 100, a second formed plastic tray 111, and an outer cover 1 formed of a paperboard substrate. The first formed plastic tray 100 includes a collar region 101 and receptacles 104 formed as depressions therein. The first formed plastic tray 100 includes upstanding side walls 112 and a front wall 113 formed perpendicularly
15 to the side walls 112. The first formed plastic tray 101 additionally includes a beveled edge 117 that runs continuously along each of the side walls 112 and corresponds with a beveled edge 118 that extends along at least a portion of the front wall 113. Front wall 113 further has a recessed edge 103 thereof forming a recessed region 110 that provides an access area for a locking element, and to assist with opening the tray. Also
20 included in the first formed plastic tray 101 is an extension 102 running along the entire length of the outer edge of the first formed plastic tray 100. Recessed region 110 includes sockets 105 that serve as engagement elements for closing the package.

The outer cover 1 of the package according to this embodiment of the invention is
25 comprised of a front panel 3, hinge panel 4 and rear panel 5 made out of a paperboard material such as C1S paperboard. As shown in Figure 1, the first formed plastic tray

100 is affixed, by adhesive means such as glue or hot melt adhesive to the inside of rear panel 5 and the second formed plastic tray is affixed to the inside of the front panel 3. The package so formed, shown in Figure 2, includes an unglued hinge panel 4 that provides the desired flexibility to allow repeated folding and closure of the package.

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The second formed plastic tray 111 is comprised of a panel region 106 surrounded by side walls 107, front wall 114 and rear wall 116. The front wall 114 further includes an extension 108 thereof. The second formed plastic tray 111 also has ridges 115 and 119 formed on side walls 107 and front wall 114, respectively.

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Recessed region 103 of the first formed plastic tray 100 corresponds in placement to an extension 108 formed into the second formed plastic tray 111. Engagement elements for closing and securing together the first formed tray 100 and the second formed tray 111, thereby closing the package, are provided as pegs 109 formed on extension 108, which are cooperatively located in correspondence with sockets 105 in the recessed region 110.

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As shown in Figure 3, the second formed plastic tray 111 further includes an extension 120 that runs along the entire length of the outermost edge of the second formed plastic tray 111.

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To close the package, the extensions 115 and 119 are pulled downward over the beveled edges 117, 118 of the first formed plastic tray 100. The extension 108 is lowered over the recessed region 110 and the pegs 109 fitted into the sockets 105. The closed package showing the exposed printable outer cover surface formed by panel 3 is depicted in Figure 4.

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Figure 5 is a transparent view of the internal aspects of the package showing the depth of the receptacles 14 in relation to the collar region 101 of the first formed plastic tray 100.

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An alternative embodiment of the invention showing a compact with a single receptacle is represented by Figures 6-7. Figure 6 also presents an alternative closure element. The package in this embodiment comprises a formed plastic tray 200 and an outer cover 6. A first formed plastic tray 200 is formed of a collar region 201, a receptacle 204 inserted therein, side walls 215 and front wall 216. Front wall 216 has a beveled edge 214 having slots 203 at spaced intervals therein, and an extension 202 running along the length of the outer edge thereof. The opening of receptacle 204 is circumscribed by a bib 208, which is depressed relative to the plane of the collar region 201. A second formed plastic tray 211 is comprised of a panel region 206, side walls 207, front wall 217 and a rear wall 218. The front wall 217 has an extension 202 protruding along the length thereof, and tabs 205 spaced along the length thereof, the tabs being positioned to cooperatively engage the slots 203 in the first formed plastic tray 200. The closure mechanism of the package of Figures 6-7 is engaged by inserting the tabs 205 into the slots 203.

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As shown in Figure 7, the closed package of this embodiment provides extensions 202 that extend beyond the outer edge of the paperboard cover, thus providing protection for the cover and also providing grips for pulling apart the first formed tray 200 and the second formed tray 211.

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Figure 8 provides an exploded, transparent view showing the placement of the first formed plastic tray 200 and the second formed plastic tray 211 in relation to the outer cover 6. Outer cover 6 is divided by fold lines into a front panel 3, a hinge panel 4 and a rear panel 5. The first formed plastic tray 200 is injection molded to include posts 209 that provide structural support to the collar region 201 and the receptacle 204. Figure 9 shows a transparent depiction of the inverted package.

Figure 10 is a representation of the fully formed, laid open package of Figures 6-9.

Figure 11 provides another transparent view of the package. The receptacle 204 is molded to have sufficient depth, as provided by a circumferential receptacle wall 210, to accommodate the desired product. Desirably, as shown, the height of the receptacle wall 210 is approximately equivalent to the height of posts 209, the receptacle wall 210 thus providing additional support to the collar region 201 and the bib 208 of the first formed plastic tray 200.

Figure 12 provides a planar end view of another embodiment of the invention that shows the relative height and placement of the receptacle wall 210 and posts 209 in this embodiment of the invention. Also in this embodiment of the invention, the cover 6 is cut from a blank such that front panel 3 and rear panel 5 each terminate at the outer edge thereof at a distance behind the outer edge formed by the respectively located extension 202 of the formed plastic trays 200 and 211. Accordingly, an extension 202 protrudes beyond the outer edges of front panel 3 and rear panel 5, respectively. The advantage of this construction is that the user can grasp the extensions 202, which are of rigid plastic construction, to pull apart and release the engagement means without having to

grip or otherwise handle the outer edges of cover 6, and thus, the paperboard portion is less susceptible to handling damage.

Figure 13 presents a transverse section of an end view of the package showing the engagement means. As shown, front wall 217 of the second formed plastic tray 211 is molded on the interior facing side thereof to form protruding tab 205, and front wall 216 of the first formed plastic tray 200 is molded on its exterior facing side to form slot 203. The tab 205 is cooperatively engaged within the slot 203. Preferably, tab 205 has an end that is formed slightly larger than the opening of slot 203, such that insertion of the tab 205 requires an application of pressure to insert the enlarged end into the slot 203, and similarly, withdrawal of tab 205 requires application of a degree of force to remove it from the opening of slot 203. Also shown in Figure 13 is a cavity 219 formed between first formed plastic tray 200 and second formed plastic tray 211. The cavity 219 is formed by increasing the depth of the collar region 201 and the planar region 206 in relation to the side walls 207, 215 and front and rear walls 216, 217 and 218, 220, respectively. The cavity 219 is useful to contain an insert, product sample or other appropriately sized article.

Figure 14 is a perspective view of an embodiment of the second formed plastic tray 211 according to the invention comprising ridges 212 around the interior periphery of the tray abutting the corner formed by side walls 207, front wall 217 and rear wall 218. When the second formed plastic tray 211 is placed over the first formed plastic tray 200, the ridges 212 extend laterally over the top edges of side walls 215, front wall 216 and rear wall 220 of the first formed plastic tray 200. Correspondingly, as shown in Figure 15, the top edges of the aforesaid walls of the first formed plastic tray 200 are beveled to provide a

groove 213 around the periphery of the said tray into which the ridges 212 will fit snugly when the two trays are fitted together.

Figure 16 shows the underside of a formed plastic tray 200 according to the invention showing the molded posts 209, receptacle wall 210, and, in particular formation of a groove 213 along a side wall 207. The groove and corresponding ridges, as represented by elements 213 and 212 of the Figures may, as shown in this Figure 16, be discontinuous and extend only along certain walls rather than around the entire periphery of the formed plastic trays.

Figure 17 shows an embodiment of the invention in which planar region 206 of the second formed plastic tray 211 is formed as a mirror element 220 by the deposition of a layer of metallic ink. Metallic foil may also be laminated onto the surface to provide the same effect, or an actual mirror may be inserted. While this latter option is within the scope of the invention it is less desirable because of the substantial increase in package weight associated with the use of a glass element, as well as the likelihood of breakage. As shown in Figure 18, the compact of the invention may also include as an insert an applicator such as a pad or sponge. Alternatively, as shown in Figure 19, the insert may be a booklet or folded literature.

It should also be noted that the compact of the invention is suitable for storage, transport and merchandising of materials other than cosmetics. Accordingly, the package of Figure 19 might be modified by incorporating convention disk holding means in collar region 201 and receptacle 204 to accommodate a CD or DVD of varying shape or size.

Yet another embodiment of the invention is represented by Figure 20. In this embodiment, a cutout 12 is included in the front panel 3 to provide viewing inside the package from the exterior, for example to see the product contained therein, and is thus useful as a display feature. In other embodiments, multiple cutouts may be

5 incorporated, and generally the cutouts may be placed on the front or rear panel of the cover. In Figure 20, a transparent film is affixed over the cutout 12. A similar film or barrier material may be affixed to the exterior of the package as well, or the same protective effect may be achieved by overwrapping the compact with a film material.

10 Still another embodiment of the invention is presented in Figure 21. According to this embodiment, a single formed plastic tray 300 is covered by a cover 305. The cover 305 is molded integrally with the formed plastic tray 300, however it is also recognized that the cover may be separately formed and then removably attached to the formed plastic tray 300. The formed plastic tray 300 includes in its front wall 302 a recessed region 303

15 providing finger access for removing the cover 305. A corresponding recessed region 309 is located in a collar region 304 of the formed plastic tray 300 that is proximately located to the recessed region 303. Cover 305 is bifurcated into flaps covering each of receptacles 314 (shown in Figure 21), each flap having a collar region 306 and a cutout 307. The flaps of cover 305 are sized to snap-fit over the receptacles 314 to provide a

20 tight closure and so contain the product inside the receptacles without the need for an additional corresponding formed plastic tray. In this embodiment of the invention, as shown in Figure 22, the cover 305 is molded integrally with the formed plastic tray 300 during an injection molding process, the die configuration providing formation of the cover 305 in an open, untensioned position, and foldably connected to an edge of the

25 formed plastic tray 300 by a living hinge 308. The undersides of the formed plastic tray 300 and cover 305 are shown in Figure 23. Receptacles 314 are molded with walls 315

that provide structural support to the collar region 304. In this embodiment, as shown in Figures 21-26, the cutouts 307 are covered with a film material that protects the receptacle contents. In other embodiments, these cutouts may be eliminated from the package construction and instead a unitary molded flap made of opaque or transparent material substituted.

Generally, in such embodiments of the package, the cover 305 provides the primary closure means, however other closure means may be incorporated. As shown in Figure 24, foldably connected cover panels 310, 311, 312, 314 and 315 are divided by fold lines to form a cover that overwraps the formed plastic tray 300. Panel 312 is terminated by a tab 316 that corresponds for insertion into a slot 317 formed in panel 310. Accordingly, when the cover panels are folded over the formed plastic tray 300, hinge panel 314 lays against the rear wall (not shown) of the formed plastic tray 300, panel 311 overlays the cover 305, hinge panel 315 lays against front panel 302 and the panel 312 partially overfolds panel 301 when the tab 316 is inserted into slot 317.

In another embodiment, as shown by Figures 25-26, a flexible substrate is used to form foldably divided panels 311, which is affixed to the underside of the formed plastic tray 300, and panel 312, which folds beneath panel 311 and may optionally be affixed to the said panel 311 by any appropriate means. The fold line between the panels 311 and 312 may also be perforated to provide for removal of the panel 312 by the user.

An alternative compact is represented by the embodiment of Figure 27, having a formed plastic tray 400 having a single receptacle 410 and a cover 405 hingedly connected to the formed plastic tray 400 by a living hinge 406. The formed plastic tray 400 includes a circular bib 408 defined by a groove 414 around a rectangular receptacle 410, and

recessed regions 403, 409 creating access points. Cover 405 is spherical in its general shape, having a rim 413 to be fitted into the groove 414. Cover 405 additionally includes a cutout 412 forming a window for viewing into the package interior. A panel 411 constructed of a flexible substrate underlies and is affixed to the formed plastic tray 400.

The invention further comprises a method of packaging, more particularly packaging cosmetic formulations wherein a hot formulation and a cold formulation may be packaged in the same package. The method comprises first forming a package comprised of an outer cover made of a flexible substrate, said outer cover having at least a front panel, a rear panel and a hinge panel, the hinge panel being interposed between the front panel and the rear panel; and a formed plastic tray attached to the inner surface of the outer cover, said formed plastic tray including one or more receptacles. Subsequently, either a hot or cold cosmetic formulation may be filled into one or more receptacles on a formed plastic tray. In this manner the receptacles on one tray may be filled with a hot formulation while receptacles on a corresponding formed plastic tray may be filled with a cold formulation. Alternatively, either the hot or cold cosmetic formulation may be filled into one or more of cassettes each sized to fit snugly within a receptacle. The order of filling the hot or cold formulations is not critical. The filled cassettes containing hot or cold formulation may be placed in one or more of the receptacles immediately after being filled. Advantageously, the presently claimed invention provides a means of packaging hot and cold-filled formulations in the same package, which is not possible when the formulation is being filled directly into the receptacles of a compact that is wholly molded, wherein the contents cannot be selected and filled separately in an efficient manner.

It is believed that the present invention includes many other embodiments that may not be herein described in detail, but would nonetheless be appreciated by those skilled in the art from the disclosures made. Accordingly, this disclosure should not be read as being limited only to the foregoing examples or only to the designated preferred
5 embodiments.

Figures 1-5 illustrates an exemplary container according to the invention. The container is exemplary illustrated with a first tray 100 and second tray 111. The two trays 100, 111 are secured to each other by a substrate 3, 4, 5. The substrate is exemplary illustrated
10 with a first panel 3, a hinge panel 4, and a second panel 5. It is to be understood that the trays and substrate may be formed of any suitable material and configured in numerous ways. It is to be understood that the trays or substrate could be partially transparent and that numerous other objects could be secured to the trays, substrate or both. For example a mirror could be secured to the substrate or tray. A design or reflective image could also
15 be printed on the substrate or tray. For example, a layer of metallic ink could be deposited or a metallic foil laminated to the substrate or tray.

[06] Exemplary features according to the invention will now be described. The first tray 100 is illustrated with a planar surface region 101 and sidewalls 112. Two exemplary and optional cavities 104 are illustrated on the tray 100. It is to be understood
20 that the cavities represent examples of a product storage means but that any suitable configuration to includes, hubs, tabs, etc are within the scope of the invention to include retaining CD roms and other media devices. The first tray 100 is also illustrated with optional beveled edges 117, 118. A recessed edge 103, forming a recessed region 110, is illustrated along one side of the first tray 100. Optional closure means 105 are also

illustrated. An optional extension 102 is illustrated along a portion of the tray 100. It is to be understood that the extension 102 could be configured in numerous ways to include extending along more than one side of the tray 100.

[07] A second tray 111 is exemplary illustrated secured to a second panel 3. The tray
5 111 is exemplary illustrated with a planar region 106, side walls 107, and front wall 114. An exemplary extension 108 is illustrated along the front wall 114. Closure means 109 are exemplary illustrated along extension 108. The second tray 111 also has exemplary ridges 115, 119.

[08] It is to be understood that the first and second trays 100, 111 can be secured to the
10 substrate 3, 4 by any suitable means to include, but not limited to, adhesives, such as glue or hot melt. It is to be understood that the first and second trays 100, 111 can be aligned with each other by any suitable means to include, but not limited to, a hinge panel 4. In an exemplary embodiment recessed region 110 and extension 108 are configured and aligned with each other in a closed container position (Figure 4). Likewise the closure
15 means 105, 109 are configured and aligned with the appropriate element on the opposite tray 100, 111. It is to be understood that any suitable closure means 105, 109 may be utilized with the invention.

[09] Figure 3 illustrates the container of Figure 2 partially closed. An optional extension 120 is illustrated along the second tray 111. Figure 4 illustrates the container
20 of Figure 2Figure 6 in a closed position. In an exemplary method closure means 109 from the second tray 111 are placed in contact (not visible) with closure means 105 of the first tray 100 by manipulating the substrate. In an ideal design, extensions 115, 119 of the second tray 111 fit tightly with the beveled edges 117, 118 of the first tray 100.

[10] Figure 6 illustrates another embodiment of the invention with a first tray 200 with a single cavity 204. An exemplary perimeter 208 is illustrated surrounding the cavity 204. The first tray 200 has a planar region 201 with side walls 215 and a front wall 216. A beveled edge 214 with closure means 203, such as slots, are also illustrated. A second
5 tray 211 is illustrated with a planar region 206, side walls 207 and front wall 217. A closure means 205, such as tabs, are illustrated along the front wall 217. Exemplary extensions 202 are illustrated along portions of the trays 200, 211. It is to be understood that the extensions 202 could be configured in numerous ways and be on more than one side of the trays 200, 211.

10 [11] Figure 7 illustrates the container of Figure 6 in a closed position. The closure means 205 of the second tray 211 are in contact (not visible) with the closure means 203 of the first tray 200. Figure 7A illustrates another embodiment of the closed container of Figure 6 where the exemplary extensions 202 extend along at least two sides of the trays 200, 211. The extensions 202 are illustrated extending beyond at least some portion of
15 the substrate. The extensions are exemplary designed to assist with opening and closing the container.

[12] Figure 8 provides an exploded view of the container of Figure 6. In addition to the elements previously described above, exemplary posts 209 are illustrated below planar region 201. The posts 209 can provide structural support to the tray 200. In
20 addition, the posts 209 can assist with securing the tray 200 to the substrate 5 or assist with the assembly of the container.

[13] Figure 13 illustrates a partial cross-sectional view of the container of Figure 6 in a closed position. Exemplary configurations for closure means 203, 205 are illustrated.

Preferably, closure means 205 has a shape that is slightly larger than closure means 203. In an ideal design, force must be applied to secure and unsecure the two closure means 205 to each other. In addition, post 209 and exemplary cavity 219 are illustrated. The cavity 219 between the two trays 200, 211 can be configured in numerous ways as
5 required for the container application. In an exemplary embodiment, the cavity 219 can retain objects, such as inserts, product samples, or other suitable articles within the container. Figures 18 and 19 illustrate two exemplary objects for the cavity 219. Figure 18 illustrates an exemplary cosmetic application device 10 while Figure 19 illustrates an exemplary booklet 11. It is to be understood that other media or digital storage devices
10 could also be stored in the container, to include electronic article surveillance devices or other theft detection or deterrent means. Furthermore, that additional retaining means could be secured to or configured on the tray or substrate to retain such objects within the container.

[14] Figure 20 illustrates another embodiment according to the invention. A cut-out
15 13 with perimeter 12 is illustrated on an exemplary panel 3. It is to be understood that the cut-out 13 could extend either partially or completely through the substrate 3. The cut-out 13 could also optionally be covered by a transparent film (not shown) or other suitable barrier means. Moreover, if the second tray 211 is partially transparent, the interior of the container could be viewed from outside the container. It is to be
20 understood that more than one cut-out 13 along any portion of the substrate and configured in numerous ways are within the scope of the invention.

[15] Figure 22 illustrates another embodiment according to the invention. A tray 300 is exemplary illustrated with two separate cover regions 305 secured to the tray 300 along

an exemplary hinge line 308. The cover 305 may be formed integrally with the tray 300 using techniques well known in the art. In the alternative, the cover 305 may be separately formed and secured to tray 300 using conventional techniques. The tray 300 is illustrated with a planar region 304, two cavities 314, side walls 301, front wall 302, and
5 two recessed regions 303, 309. The cover 305 has a planar region 306 and exemplary cutouts 307 as described above in Figure 20. The flaps of cover 305 are ideally configured and aligned to fit over the cavities 314.

[16] Figure 21 illustrates the container of Figure 22 in a closed position. Figure 23 illustrates another embodiment according to the invention. The planar region 304 of the
10 Figure 22 container is absent and side walls 315 for the cavities 314 are illustrated.

[17] Figure 25 illustrates another embodiment according to the invention. Panels 310, 311, 312 are illustrated secured to at least some portion of the tray 300. The panels 310, 311, 312 can be configured, folded, and secured to the tray 300 in numerous ways.

[18] Figure 24 illustrates another embodiment according to the invention. Panels 310, 311, 312 are illustrated secured to each other with hinge panels 314, 315. An exemplary
15 tab 316 is illustrated secured to panel 312. In an exemplary embodiment, the panels 310, 311, 312 can be folded (not shown) in several ways so that tab 316 can be inserted into the slot 317 on panel 310. In an exemplary embodiment, one or more panels 310, 311, 312 can have assist features to aid in removal of the panels 311, 312 from the tray 300.

[19] Figure 28 illustrates another embodiment according to the invention. A tray 400 having a single cavity 410 and a cover 405 secured by a hinge means 406 to the tray 400. The tray 400 includes a perimeter 408 defined by a groove 414 around a rectangular
20 cavity 410. The tray has two exemplary recessed regions 403, 409. Cover 405 has a rim

413 that is exemplary configured for groove 414. Cover 405 optionally includes a cutout 412. A panel 411 is exemplary secured to the tray 400.

[20] The invention further comprises a method of packaging cosmetics using both hot and cold packaging methods for the same container. The method comprises forming a container as described above. Subsequently, either a hot or cold cosmetic is placed in the container. A second hot or cold cosmetic is then optionally placed in the container. Alternatively, a cosmetic may be filled into one or more of cassettes that are sized to fit within cavities on the container. It is to be understood that the order of placing hot or cold cosmetics into the container is not critical, but may be optimized according to the packaging operation.

[21] It is believed that the invention includes many other embodiments that may not be herein described in detail, but would nonetheless be appreciated by those skilled in the art from the disclosures made. Accordingly, this disclosure should not be read as being limited only to the foregoing examples or only to the designated preferred embodiments.